

ABSTRACT

An insulative housing formed about a distal end of a medical electrical lead body includes a cavity and a port; an ionically conductive medium fills the cavity and is in intimate contact with an electrode surface contained within the cavity. When a current is delivered to the electrode surface contained within the cavity, a first current density generated at the electrode surface is smaller than a second current density generated out from the port of the insulative housing; thus, the port forms a high impedance and low polarization tissue-stimulating electrode.